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CURRENT SERIAL RECORDS

# the COCKCHAFER



# THE COCKCHAFER

*The cockchafer<sup>1</sup> is not known to occur in the United States. It may get in. If it does, and if it becomes established, it may cause serious damage to many crops and ornamental plants. Resultant financial losses could be heavy. Watch for this insect and for any other insects you do not recognize. Report them promptly so they may be identified, controlled, and possibly eradicated.*

The cockchafer is one of a group of beetles widely known as June beetles, and is closely related to two destructive pests that are firmly established in the United States—the European chafer and the Japanese beetle—and which came here from other countries. The Japanese beetle causes more than \$15 million damage annually in the United States.

The cockchafer attacks more than 60 host plants, including strawberries, grapes, apples, pears, peas, beans, on-

ions, lettuce, potatoes, crucifers, oats, barley, corn, soybeans, tobacco, alfalfa, clover, and many ornamentals and trees.

This insect is a major pest in central Europe. In 1932 a severe outbreak in the British Isles damaged strawberries, young fruit trees, cereals, and vegetables; and in 1937 the pest caused loss of up to 65 percent of the pea and bean crops on several farms in that region. It has injured vineyards in Rumania, and beets and cereals in Denmark. It has also been responsible for crop damage in Austria, Czechoslovakia,

<sup>1</sup> *Melolontha melolontha* L.; family: Scarabaeidae.



*Geographic distribution of the cockchafer. Red area indicates part of the world where this pest occurs.*

France, Germany, Holland, Hungary, Poland, Spain, Switzerland, Yugoslavia, and western parts of the U.S.S.R.

In 1961, adults of this chafer were found in commercial passenger airplanes arriving in Boston, Chicago, New York City, and Anchorage, Alaska. In 1964 the pest was intercepted at New York, Philadelphia, and San Francisco. All flights were from France, where there was a severe outbreak of the pest. Extensive surveys were made in areas where the planes landed, but no established infestations were found. However, the cockchafer could reach the United States again. If it became established here it could cause heavy plant damage and financial loss. Every precaution must be taken to prevent this.

#### DESCRIPTION OF INSECT

The adult is a beetle about 1 inch long. It has a black head and thorax, and reddish brown wing covers. The antennae have prominent, club-shaped end segments, and the segments have seven leaves in the male and six in the female. The club of the antenna is



*Damage to roots of young tree caused by feeding of cockchafer larvae.*

much longer in the male. The larva is milky white, fleshy, curved, and wrinkled; it is about  $1\frac{1}{2}$  inches long when fully grown. The pupa is orange yellow and about  $1\frac{1}{8}$  inches long; except for coloring, it resembles the adult.



*Adult and larva of the cockchafer. Enlarged.*

## DESCRIPTION OF DAMAGE

Adults feed on the leaves of many trees and shrubs—particularly on oak, beech, elm, birch, apple, and hawthorn. The larvae feed on the roots of

almost all plants, and are responsible for most of the damage and loss of yield caused by this pest.

## THE PLANT PEST PROBLEM

At least half of our most destructive insects entered the United States from other countries, many before the Plant Quarantine Act of 1912 was passed. Today, thousands of plant pests are intercepted at our borders by plant quarantine inspectors, but some of them still gain entry.

When a new pest is detected, orga-

nized efforts are exerted to (1) pinpoint the areas where it has become established, (2) set up a quarantine to prevent spread, and (3) control the pest and eradicate it if possible. The sooner a new pest is detected, the better is the chance of controlling or eradicating it before it does serious damage.

## WHAT YOU CAN DO

Watch for this pest in fruit orchards; in plantings of peas, beans, onions, lettuce, potatoes, and other field crops; and in ornamental plants.

If the cockchafer should gain entry here, its larvae probably would be present around the roots of these plants; and adults would be found flying or feeding during the months of May, June, and July. Under conditions in the British Isles, the adults usually appear during the first warm weather in May, and are on the wing until early in July. They fly mostly in the evenings. The large, reddish brown beetles have a distinctive appearance.

If you should find insects answering their description, collect some specimens. Also collect specimens of any white larvae found feeding on the roots of the plants mentioned in this publication. Send the specimens to your nearest agricultural official.

Mail specimens in a small bottle containing rubbing alcohol. Include a note giving your name and address, and telling where the specimens were found and on what plant. Do not send live specimens. If your local agricultural official does not recognize the specimens, he will send them to the proper authorities for identification.

*Prepared by*  
Plant Pest Control Division  
Agricultural Research Service

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